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THE INDICATIONS AND NATURE OF TREATMENT IN SEVERE ABDOMINAL INJURIES AND INTRA-ABDOMINAL HEMORRHAGES UNACCOMPANIED BY EXTERNAL EVIDENCE OF VIOLENCE.

BY JOHN B. DEAVER.
PHILADELPHIA.

Read before the Philadelphia Academy of Surgery, January 7, 1895.

Contrary to our custom, which has been for the orator on this occasion to present an address upon the advances made in surgery during the preceding year, I would beg the privilege of our Honorable President and Fellows to substitute therefor a paper upon a subject that must appeal to every practical surgeon, namely, "The Indications and Nature of Treatment in Severe Abdominal Injuries and Intra-abdominal Hemorrhage Unaccompanied by External Evidence of Violence."

Every surgeon has undoubtedly at some time in his experience, either in private or hospital practice, met with cases coming under the class covered by the title of this paper. These are cases in which the history and general condition of the patient give the impression that there is a serious lesion within the abdomen, and yet, upon examination, we find total absence or only slight evidences of injury. The tendency, I fear with many, is to treat these patients tentatively, only to be awakened at the autopsy to the fact that a rupture or a tear existed in the abdominal cavity, which, by early radical operation, could have been relieved.

The mortality in these cases is appalling; references to the literature of the subject will amply bear out this statement, which is readily accounted for by the nature of the injuries. Where the lesion is of the liver or spleen, if the patient does not die of shock or hemorrhage, a violent peritonitis supervenes, to which he shortly succumbs. If the liver, spleen or kidneys are involved, death from hemorrhage may ensue in a very short time. Should the stomach, intestine, or bladder be ruptured and their contents poured into the peritoneal cavity, death from peritonitis is the result. In rupture of the mesentery the danger is from hemorrhage, yet when the opening in the mesentery is small a clot may form sufficiently large to control the bleeding. Should death occur under these circumstances it would be the result of peritonitis caused by the free blood in the peritoneal cavity. I report a case of this character, where recovery followed immediate operation. In ruptured extra-uterine pregnancy death is due either to hemorrhage or peritonitis.

The usual history of these cases, with the exception of extra-uterine pregnancy, is that the patient has received a direct injury to the abdomen, which is found to be unaccompanied by external evidence. These injuries may result from railroad accidents, from being caught between shifting cars, or from blows upon the abdomen received in various ways.

This class of injuries is quite common in military surgery, more so in the past, when spherical balls were used and only a low velocity attained. A majority were supposed to be caused by the violence of the wind displaced by the passing ball, but we know now that they were due to the impact of the balls almost entirely spent.

Two cases which illustrate this occurred at the siege of Sebastopol. In

neither did the clothing or the abdominal walls show any signs of injury, but both the liver and spleen were comminuted to a pulp, and the intestines extensively lacerated (Mr. Hulke, Lancet, December 31, 1892).

As yet we have no reports from surgeons of the armies engaged in the present strife between Japan and China, but it will be of great interest to read the records of such cases. We can expect, I think, a very full and detailed account from the Japanese surgeons. We have all applauded the work of some brilliant individuals of the Japanese profession, and, in fact, we must assign to Japan in medicine the same standing that she has taken in other walks of civilized life, and which she has demonstrated she can hold.

The most prominent symptom is pain, which is accompanied by shock, the degree of which is dependent upon the extent of injury and the temperament of the individual.

I might say here that temperament and nationality have a strong bearing in the production of shock. Persons of a highly nervous temperament suffer more from shock than do phlegmatic individuals. For example, Americans are far more liable to suffer a severe degree of shock following injuries or operations than are the Germans.

The pain is peculiar and difficult to describe, but is readily recognized by one who has seen many of these cases and by the patient himself. It is not that of ordinary intra-abdominal affections, but is described by the patient as if something had given way or ruptured, and is usually accompanied by a consciousness of impending death. It is usually accompanied with tenderness, which will be more or less localized, unless the ensuing peritonitis be general. In the early stages of the injury, when shock is most profound, it may not be so pronounced, and if large doses of opium be administered it may be masked throughout the course of the trouble.

When vomiting is present it is usually associated with pain. Rarely does the vomited matter contain blood.

There is often seen a characteristic rigidity of the abdominal walls, which is due to intra-abdominal irritation. I have seen this so marked as to recall to mind the checkerboard appearance of the normal abdominal walls as represented in the pictures of the early artists.

In the cases I have observed, consciousness has invariably been retained for varying periods of time. Restlessness is not usual in the early stages except in severe hemorrhage, but later on, when peritonitis develops, it is not an uncommon symptom.

The pulse and temperature vary according to the degree of shock. The former is weak and running, varying from 100 to 160, and the temperature subnormal. If reaction takes place the pulse becomes stronger and less frequent, and the temperature reaches the normal line. After reaction peritonitis is invariably the rule, and is accompanied by an accelerated and a high-tension pulse. The temperature under these circumstances is unreliable, as it does not correspond to the degree of inflammation or septic infection. A high temperature with a slow pulse is less significant than a rapid pulse with a low temperature. In cases of septic peritonitis, where autopsy revealed a belly cavity full of foul pus, I have seen the temperature run a normal course throughout the disease.

The part the sympathetic system of nerves, which has its largest distribution in the abdominal cavity, may play in injury to the abdomen is important considering the differential diagnosis between the simple contusion and contusion accompanied by visceral lesion. In the former the absence of the severe and characteristic pain, of constant and persistent vomiting, of the anxious expression and presentment of impending death, and of any evidence of loss of blood, associated with the occasional presence of suddenly developed meteorism, will usually be sufficient to establish the differential diagnosis. This condition of meteorism is due to paralysis of the muscular coat of the bowel consequent upon the concussion of the plexuses.

There are cases, however, where it is very difficult to say definitely whether there be a visceral complication or not. Under these circumstances one can only wait for a comparatively few hours, when, if improvement is not apparent, the operative course is to be pursued. When the solid viscera are the seat of injury hemorrhage will be the main source of anxiety. The pain and the exsanguination give the clew. If the patient should react, which is unusual, unless the kidney is the injured organ, we will find, in addition dullness on percussion in the flank. Rectal or vaginal examination may afford aid in determining the presence of a collection of blood in the pelvis. The solid organs suffer most from external violence on account of their fixity, density and close proximity to the bony structures. The liver is the most often injured, then the uterus, spleen and kidney, in the order named. The stomach is least often injured, there being very few such cases on record. Dr. J. W. Goff (Medical and Surgical Reporter, 1892), reports a case of ruptured stomach following a horse kick of the abdomen, verified by an autopsy. The shock was profound, and there was vomiting with absence of blood. The author states that he believes immediate operation would have saved the patient's life.

In the Glasgow Medical Journal for 1894, vol. xli, Andrews reports a case of rupture of the stomach without external evidence of violence, in which all the symptoms of a serious visceral lesion were present with the exception of vomiting. The rupture was upon the anterior wall; was about an inch long, and involved all the layers. I cite this case as one of special interest on account of the location of the tear and the absence of vomiting.

The liver is the organ most often affected because of its position beneath the ribs and against the spine, and because it is held firmly in place by strong ligaments and bloodvessels. It is most commonly ruptured on its upper surface, generally in the right lobe, and in a majority of such cases the injury proves fatal. Dr. H. P. Loomis (Medical Record, January, 1893), reports a case where the patient was struck by a pole protruding from the back of a wagon, which, when the wagon turned the corner, struck him on the right side, leaving no external evidence of violence. There was a three-inch tear in the right lobe of the liver and a pint of blood in the abdominal cavity. The patient died in the street from hemorrhage before medical aid could reach him.

Mr. Battle (London Lancet, 1894), reports a case of rupture of the bile duct, in a boy six years of age, who was run over by a hansom cab, in which there was but a slight shock without much pain or tenderness. Vomiting began early and persisted. On the fifth day slight jaundice developed. He was operated upon on the eighth day, and the abdominal cavity was found filled with bile. He died on the morning of the ninth day.

Autopsy. Liver and gall-bladder were intact, but about one-half an inch beyond the junction of the cystic and hepatic ducts the common duct was found to be torn completely through. No other injury was found.

J. E., aged forty-six years, was admitted to the German Hospital on November 17, 1893, suffering from injuries received by being struck by a locomotive. He had a compound fracture of the lower jaw, lacerated scalp wound and fracture of four ribs on the left side, with no other signs of injury. He died six hours later. Post-mortem examination revealed a hematothorax of the left side. The peritoneum was not perforated or otherwise injured, but the peritoneal cavity was filled with blood. The spleen was completely comminuted, and the left kidney had been forced from its bed and was floating in the retro-peritoneal space. There was an extensive hemorrhage between the layers of the mesentery and a hemorrhagic extravasation of the posterior wall of the stomach.

H. M. C., colored, aged 16 years, was admitted to the German Hospital on the evening of December 3, 1894, with the following history:

While playing about some moving freight cars he was accidentally caught between the bumpers, sustaining an injury to his abdomen. Examination upon admission failed to disclose any evidences of external injury. The introduction of the catheter drew clear urine. There was a moderate degree of shock, and the patient complained of severe pain in the abdomen and tenderness on palpation. Further investigation proved negative.

The resident surgeon, Dr. Page, not deeming the case of sufficient severity to send for me, treated the patient for shock. When I examined him upon the following day it was very evident from the severity of the abdominal pain and tenderness associated with very decided rigidity of the abdominal walls, that he was suffering from a serious intraperitoneal lesion. I decided to open the abdomen at once. As soon as the peritoneal cavity was opened a large quantity of dark liquid blood escaped. The small intestines were delivered, when the cause of the lesion was found to be a ruptured mesenteric vein, the bleeding from which was arrested by the presence of a large diffused blood clot occupying the interval between the layers of the mesentery. To make sure that there was no other lesion, the large intestines, the stomach, the liver and the spleen were carefully examined, but with a negative result. The abdominal cavity was washed out with warm saline solution, glass drainage was introduced into the pelvis and the wound closed. Recovery was uninterrupted.

L. C., male, Italian, aged thirty-five years, was admitted to the German Hospital, with a history of a fall of about fifty feet, striking upon his abdomen. He was profoundly shocked and exsanguinated. The only external evidences of injury were some slight cuts on the hands and head. A diagnosis of internal hemorrhage was made and the abdominal cavity opened up. Dark liquid blood escaped as soon as the peritoneum was opened, and the source found to be the mesenteric vessels. The mesentery was torn half way across and the intestines lacerated in four places. The mesentery was united with a series of catgut ligatures. The rents in the intestines closed with the Lembert sutures. The abdominal cavity was washed out with hot saline solution and closed. He died two hours after the operation. The autopsy demonstrated several tears in the gut which had been overlooked, and several grapeskins and pieces of fig in the peritoneal cavity.

The most common form of intra-abdominal hemorrhage is that resulting from ruptured extra-uterine pregnancy. While these cases may be due to traumatism without any external evidence they are usually spontaneous. While hemorrhage from the pelvic organs of the female usually occur from a ruptured extra-uterine pregnancy, it may be due to other non-traumatic causes. Hematosalpinx may occur independent of pregnancy, and rupture either spontaneously or from traumatism. Again, degenerated bloodvessel walls, and especially veins, may rupture under similar circumstances.

To be continued.

THE KEEPING QUALITIES OF THE VARIOUS BRANDS OF PEROXIDE OF HYDROGEN.

BY H. ENDEMANN, PH. D. CHEMIST.

(Formerly Associate Chemist to the New York City Board of Health.)

In compliance with my determination to arrive at some conclusion as to the keeping qualities of the brands of medicinal peroxide of hydrogen, on which I reported December last in the "Times and Register," I now send you the outcome of these tests, which were made with the same samples after the lapse of approximately three months.

All the samples have been kept in the dark at a temperature ranging between 63 and 52 degrees F. They were all standing up in the same case side by side.

The first column of the following table contains the tests obtained in November, 1894; in the second, those

obtained on the 18th of February, 1895.

Brands of H202 Solutions.	Available Oxygen as determined November, 1894, in samples then purchased.	Available Oxygen as determined in samples purchased and tested November, '94, when retested, February '95.
No. 1, John Bene's Medicinal	10.50	9.72
No. 2, Hydrozone	27.35	25.90
No. 3, Larkin & Schefer's Medicinal	9.65	9.23
No. 4, Mallinckrodt's Medicinal	9.55	9.00
No. 5, Marchand's Medicinal	16.55	14.90
No. 6, McKesson & Robbins' Medicinal	10.95	10.60
No. 7, Merck & Co.'s Medicinal	0.50	0.40
No. 8, Oakland Chemical Co.'s Medicinal	10.50	9.80
No. 9, Peuchot's Medicinal	10.60	10.25
No. 10, Powers & Weightman's Medicinal	8.40	6.00
No. 11, Pyrozone 3 per cent. Medicinal	11.20	11.02
No. 12, Rosengarten & Son's Medicinal	5.10	0.28
No. 13, Smith, Kline & French Co.'s Medicinal	6.15	3.65
No. 14, E. R. Squibb's Medicinal	12.40	9.85

By referring to the above table it is easily understood that with the exception of brands No. 7, No. 10, No. 12, No. 13 and No. 14, the keeping properties of the other samples are quite satisfactory, but the only brand which practically answers to the standard is the No. 5.

It is remarkable to see that brand No. 2, "Hydrozone," which was twice as strong as brand No. 5 in November, and about three times as strong as brands Nos. 1, 3, 4, 5, 8, 9 and 11, has lost but little of its active oxygen, so that its high degree of strength, as well as its keeping properties, can be relied upon.

My opinion concerning peroxide of hydrogen for medicinal purpose is, that strong solutions will soon be exclusively in use, providing their keeping properties are satisfactory, and I consider that even a 15-volume solution is not always powerful enough. Should this strength be sufficient in the majority of cases the 27 or 30 volumes can easily be reduced to 15 volumes, so that the strong solution will answer all requirements.

25 William street, New York City.

ACETANILID AS AN ANTISEPTIC; WITH OBSERVATIONS UPON ITS USE IN ONE THOUSAND SURGICAL CASES.

During the past six months I have been employing acetanilid locally in a large number of surgical affections, with results so surprising in some respects as to make it difficult to restrain enthusiasm in commenting upon the antiseptic properties of the drug.

Having noticed mention of the remarkable powers of acetanilid in preventing pus-formation in the articles of Drs. Harrell and Bodamer, I began cautiously to employ the substance, and have since been extending its trial in many directions, until now, my cases having numbered over one thousand, I think myself justified in making some preliminary observations that others may be persuaded to try the drug, so that, by multiplying observers and cases, we may more early come to know the exact value and limitations of the drug as an antiseptic.

The action of acetanilid upon wounds, especially granulations, when used in full strength, is to produce intense dryness, blueness and to check at once and prevent the formation of pus. Upon extensive granulating surfaces and chronic ulcers a slight burning sensation is at first perceived, which is rapidly succeeded by sedative or anesthetic effect. If used in sufficient quantity a thin scab of acetanilid, combined with the wound secretion, forms, under which healing rapidly progresses. If a very large surface is exposed to the action of the undiluted drug, toxic symptoms promptly surpervene in susceptible individuals.—Dr. T. S. K. Morton in Philadelphia Polyclinic.

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ARGON.

THE NEWLY DISCOVERED ATMOSPHERIC CONSTITUENT.

Of all the discoveries which have been made in recent years this will doubtless prove the most valuable to scientific men. The fact once proved that a new element enters into the composition of the air we breathe, the field opens wide for investigation as to its relation to disease. The London Lancet for February 9 speaks editorially concerning the new discovery in the following manner:

"There is no longer the least doubt that Lord Rayleigh, Sec. R. S., and Professor Ramsay, F. R. S., have made a most important discovery, and the most remarkable thing connected with it is that the new element (or it may be elements) has been separated, not from any rare earths or other comparatively unknown source, but from our own familiar friend, the air we breathe, "Argon" has thus escaped the notice of investigators for nearly a century, and its probable existence was only lately surmised by a physicist when he observed that the density of nitrogen expelled from chemical compounds was about 1-2 per cent. lighter than atmospheric nitrogen; its actual separation and identification seem, however, to have been reserved until both chemist and physicist attacked the problem.

"The former was Lord Rayleigh and the latter Professor William Ramsay, and the result of their joint labor is a happy instance of the success which attends the co-operation of those who, though engaged in different but adjoining fields of scientific research, yet labor in concert to unfold the secrets of nature. It is not possible to enter into the masterly and extremely interesting argumentative details of the paper contributed by Lord Rayleigh and Professor Ramsay, the reading of which by the latter riveted the silent but expectant attention of the Fellows of the Royal Society and their friends in the theatre of the London University. Suffice it to say that the history of the progressive stages of the investigation was not the least fascinating portion of the paper, as were also the clear and lucid arguments and experimental evidence adduced, which left the distinguished audience in little doubt as to whether the element or constituent separated was really new or old.

"We may, therefore, pass at once to a brief account of the history, preparation and properties of the new element. By way of preface, however, it is impossible to forget the classic work in the last century of Cavendish on the composition of the air, which must appeal once more to the wonder and admiration of present-day chemists and physicists, his power of discernment being, in the light of this recent discovery, more clearly evident than ever before, since in his remarkable paper published in the Philosophical Transactions in 1788 he expresses doubt as to whether the nitrogen of the air (phlogisticated air) was in kind elementary, and he even adduced distinct experimental evidence—based on the oxidation of nitrogen by means

of the electric spark and subsequent absorption of nitric fumes—of another constituent in the atmosphere. Thus he wrote, 'If there is any part of phlogisticated air of our atmosphere which differs from the rest and cannot be reduced to nitrous acid we may safely conclude that it is not more than 1-120th part of the whole.' This residue was, no doubt, Lord Rayleigh's and Professor Ramsay's argon, which occurs probably to the extent of between 1-125th and 1-20th part of the whole atmosphere.

"It was by repeating the Cavendish experiment, with the facility of appliances which the improvements of a hundred years have afforded, and by adding successive quantities of the air out of which the nitrogen was eliminated in the manner indicated, that Lord Rayleigh and Professor Ramsay showed that the residue could not be nitrogen, but another body, which they have called 'argon.' Under similar treatment chemically obtained nitrogen yielded no such residue, except such as could be accounted for by accident or other cause. Argon is best obtained, however, by first freeing the air, from which carbonic acid and water have been removed, from oxygen by means of red-hot copper and then absorbing the nitrogen by means of metallic magnesium, which, when heated to redness, combines with the nitrogen, forming an orange-colored mass of magnesium nitride. The residue gas after this series of operations—the passage of the gases being repeated again and again—is argon. In this process, again, chemically derived nitrogen yields no such residue. The density of pure argon is 20; hence its molecular weight in accordance with Avogardro's law must be 40. There are reasons for believing that, like mercury, its molecule contains but one atom; its atomic weight, 40, is therefore identical with its molecular weight.

"Argon is soluable to the extent of 4 volumes per 100 volumes of water, so that it is about two and a half times as soluble as nitrogen, and possesses approximately the same degree of solubility as oxygen, and is accordingly found to occur in increased proportion to nitrogen in rain water.

"According to Dr. Olszewski, a well-known authority on the constants of liquefied gases at low temperatures, argon easily condenses to a colorless liquid at a temperature of 128.6 degrees C. and under a pressure of 38 atmospheres. At a lower temperature argon freezes to a crystalline mass like ice; at a still lower temperature it becomes white and opaque. Its freezing point is 189.6 degrees, its boiling point 187 degrees, and its density as liquid is 1.5 degrees.

"As far as spectroscopic work can decide Professor Crookes concludes that Lord Rayleigh and Professor Ramsay have added one, if not two, members to the family of elementary bodies. It appears that argon yields two distinct spectra, and this would indicate it to be in reality a mixture of two gases, which have as yet not been separated."

"On the other hand, Dr. Olszewski has shown that argon has a definite melting point, a definite boiling point and a definite critical temperature; and these, as is well known, afford excellent criteria of a pure substance, while there is no certainty that the exhibition of several spectra is necessarily characteristic of a mixture. Still further light, however, is needed upon this all-important point, and the discoverers hope to decide the question in the experimental work which they promise shortly to undertake. If argon be a single element, then there is reason to doubt whether the periodic classification of the elements is complete—whether, in fact, elements may not exist which cannot be fitted among those of which it is composed. On the other hand, if argon be a mixture of two elements they might find place in the eighth group in Mendeleef's classification, one after chlorine and one after bromine. If it be supposed that argon belongs to the eighth group, then its properties would fit fairly well with the requirements of the periodic law. For the series which contains silicon, phosphorus, sulphur and chlorine might be expected to end with an

element of mon-atomic molecules of no valency—i. e., incapable of forming a compound, or, if forming one, being an octad; and it would form a possible transition to potassium with its monovalence on the other hand. 'Such conceptions are, however, of a speculative nature, yet they may perhaps be excused if they in any way lead to experiments which tend to throw more light on the anomalies of this curious element.' Lastly, the extreme indifference or inertness of argon to combine with other elements, in spite of its solubility in water, is remarkable. All attempts to combine argon with the bodies which commonly exhibit a vigorous affinity for certain elements have proved utterly abortive. Fluorine, which lays siege to almost every known body, has, however, not been tried. In this connection it should be borne in mind that it is nitrogen's very inertness which makes it so powerful an agent in modern high explosives; it strongly resents partnership or a tied existence, as does apparently argon, and longs to exchange the solid condition for the gaseous. We are face to face, then, with a mass of remarkable evidence, brought forward with singular skill and clearness by the discoverers, in favor of the existence of a new constituent of the atmosphere. It has stood unflinchingly the minute and exacting investigations of Dr. Olszewski and Professor Crookes.

"We may ask, what is the significance of this newly discovered constituent of the atmosphere? Does, for instance, its presence affect the phnomenon of respiration or of the assimilation of food material by plants? Would not its solubility in water, which is greater than nitrogen and equal to oxygen, lead to its transmission through the moist membrane of the lung, and, if so, what part does it play in the physiological processes in man upon which his very existence depends? Does its alternating presence in the air possibly account for the bracing influence of sea and mountain air, and are the benefits of balneo-therapeutics to be ascribed to argon? Again, is it nitrogen or, after all, argon that is disengaged from certain warm mineral waters, as those of Buxton? All these and other questions of probable importance will at once occur to our readers when they learn the existence and the properties of the new atmospheric constituent. Who can tell, therefore, that the discovery of argon may not open a new vista even to the student and practitioner of medicine? It is certain that now the existence and position of argon have been indicated, as with a new planet or comet, a host of observers will turn their instruments upon it and many deductions on these and other points are sure to be forthcoming."

THE DISPOSAL OF HOUSEHOLD GARBAGE IN CITIES.

In these times of congregation and concentration of a nation's population in large cities and towns, the question of the economical and safe disposal of the residue of food and the excrementitious substances of the human body has become an important and serious one for our economists and sanitarians to deal with.

Paris, with her stupendous sewerage system, is now in trouble over its non-success, as the gross volume of sewerage has become so great that the Seine has been transformed into a vast sewer-drain, carying with its currents, through France, on its way to the ocean, the most intolerable of germ-laden stenches, which, in summer are diffused through the atmosphere for miles on either side of the river's banks.

It seems little short of a positive criminal waste to turn this valuable fertilizer into the sea, while its natural repository is the soil; but, for the present, there seems no other means of getting rid of it.

As to household garbage, until of late years scavengers collected and sold it to farmers at a profit. This now, however, can be no longer done, as it has no sale.

In New York swill is collected by the city, carried out to sea in scows and dumped into the water, convenient to the Long Island coast.

This has proven exceedingly expensive, unsatisfactory, inasmuch as in severe winter weather the floats cannot go to sea in safety, and besides, in many important particulars, is a menace to the public health, and cannot under any circumstances be regarded other than a temporary make-shift.

Dr. Douglas H. Stewart, the well-known sanitarian, has lately made an exhaustive study of the whole subject, visiting Europe and examining into the various systems in use in the larger continental cities, and testing the merits of the various devices there used to destroy swill. In his lecture on the subject of the "Disposal of Household Garbage in New York," lately delivered before the section of Public Health, in the Academy of Medicine, he declared that the only solution of the question lay in cremation. He proved by an elaborate set of statistics, gathered from widely-scattered sources, that household garbage could be reduced to ashes in modern garbage crematories without producing offensive odors, and that in the process of its combustion, in each crematory, from fifty to one hundred horse-power could be generated, which might be utilized to run dynamos or for other purposes.

It certainly seems little less than criminal waste to deliberately destroy a mass of material of such a highly nutritive value as clean, fresh swill; but we must deal with conditions and not speculation in this iconoclastic age, and, if swill cannot be sold, the next question arises: What will we do with it, that will not menace the public health and entail the least expense? Indeed, under these circumstances there can be but one answer to this question, viz., we must cremate it.

Engineering skill and mechanical ingenuity have now provided us with such simple, inexpensive and efficient crematories that we will only need a sufficient number of them to quickly and without odor reduce every description of animal and vegetable debris by incineration to an ashy residue which will equal only about three per cent. of the original bulk of garbage.

Dr. Stewart's suggestion to so manipulate the draught that in the process of incineration the heat which is imparted may be used to generate steam to move machinery is in the line of domestic economy, and must commend itself as practical and valuable. We are pleased to learn that in the great city of New York a member of our profession has taken the subject in hand and has commenced an important reform on scientific lines, the consummation of which will place the population of the metropolis under a lasting obligation to him.

We can conceive of almost nothing blocking the way of substantial reform in this direction on the subject of hygiene, except political jobbery, for which the profession must be on the alert and promptly expose it if it should become too flagrant. We congratulate Dr. Stewart for the able manner in which he has finally pointed the way to an important sanitary reform, and trust that the reform city government of New York will promptly put his recommendation into effect.

Book Reviews.

THE PHYSICIANS' VADE MECUM. Being a hand-book of medical and surgical reference, with other useful information and tables. By S. J. Wimmer, M. D., and F. S. Parsons, M. D. Published by the Medical Publishing Company, Philadelphia. Price, $1.

This book, the publication of which has been much delayed by additions made thereto, above those originally intended, is now completed. It contains 483 pages, and makes a volume about twice as large as was planned when the price was fixed at $1. This makes the work all the more valuable.

The book has been prepared with the utmost care at considerable ex-

pense. It presents very useful information for physicians,students and druggists. A glance at the table of contents at once suggests the completeness of its arrangement. Tables are given of abbreviations, doses solubility of chemicals and elementary substances, etc.

The tables of the apothecary and metric systems and their approximate equivalents are most complete. Synonyms of disease, tables of the eruptive fevers, incompatibles, pulse, formulas and doses for hypodermic medication and for inhalation of medicines.

The book also gives a chapter on feigned diseases, medical examination of children, examination of urine, rules for calculating doses, etc.

A synopsis is given of all diseases, their definition, symptoms and treatment in classified order. Children's diseases is the subject of chapters 11, 12 and 13, by Dr. Parsons. The first deals with the care of the infant immediately after birth. The second treats of infant feeding. The third gives a brief resume of the most important diseases of infancy liable to occur prior to the third year, except the contagious diseases,which are the subject of other pages.

One of the most valuable chapters in the work is the 14th. It treats of a subject, which, we believe, has never yet been undertaken in medical litrature. It is called "The Physician's Interpreter," and consists of a complete set of questions to which the patient is to answer only "yes" or "no." These questions are arranged in three different languages —English, French and German, in rotation, and it is intended to assist the doctor in his rounds of cases among foreign patients who do not know the English language. It will be an invaluable help to city physicians who have dispensary work, or who have occasion to be among French or German population.

The last chapter is devoted to prescriptions, of which there are over 1000 in the book.

A work like this is worth, at least, $3 or $4, and the fact that the publishers have placed it at the small price of $1 should appeal to every physician in the land. The size is such that it will slip into the pocket, being printed on an excellent quality of thin paper. It is well indexed and makes an extremely neat little volume.

A TEXT-BOOK OF ANATOMY. Descriptive and Topographical, with 625 Illustrations. By Carl Heitzmann: English Edition by Louis Heitzmann, M. D. Price, $7. Medical Publishing Company, Agents, No. 718 Betz Building, Philadelphia, Pa.

This work is the English translation of the text-book on anatomy which is used throughout Germany in most of the universities.

It is about the size of Gray's Anatomy, but printed on much superior paper.

The illustrations are the most perfect we have ever seen. The points of precision are of photographic fineness and unequaled in any English work.

More strictly speaking this might be classed as an anatomical atlas. The illustrations of visceral anatomy are most complete.

To the physician who does much surgery the work is invaluable.

The price of the work was formerly $7, but will now be mailed for $3 and postage (35 cents). A limited supply only is on hand.

A PRACTICAL THEORY AND TREATMENT OF PULMONARY TUBERCULOSIS, by Frank S. Parsons, M. D., editor of the Philadelphia "Medical Times and Register." Published by the Medical Publishing Company, 718 Betz Building, Philadelphia, Pa. Price, 25 cents. Paper cover.

This monograph covers 77 pages of a neat little volume. It treats of a subject of universal interest to all scientifically inclined persons.

The author views tuberculosis in a new light, and from a more rational standpoint than any that has recently been advanced. This work, it is safe to say, marks a new era in the study of this disease.

The first pages are devoted to an interesting introductory, illustrative of the present condition of medical thought upon the subject. The causation of tuberculosis is then taken up, and it is ably shown that the dominant theory regarding the tubercle bacillus as a causative agent is not based on the true pathological condition in the early stages of phthisis.

In the pages devoted to a consideration of symptomatology it is suggested that, in view of the universal dislike of fats by phthisical persons, there doubtless exists a disordered condition of the pancreas, which condition of the pancreas, which condition may be congenital or acquired.

Dr. Parsons has based the treatment of consumption on the lines of this new theory, calling attention to the advantages to be gained by elimination, nutrition and oxygenation. The low price of the book places it in reach of everyone, and no physician should be without it.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, New York.

A PLUNGE INTO ELECTRO-THERAPEUTICS.

PROGRESS IS MADE.

We left Dr. Holmes on the verge of making the acquaintance of a meter. As his experience enlarged he had added to his electrical information gradually, and his latest discovery referred to the necessity of some device to comply with the new custom of measuring the galvanic dose. Before the firm to whom he had written could respond he sent them an order for a standard instrument (price per catalogue $40), but almost immediately afterwards he encountered these remarks in an article by Paul F. Munde: "I look upon the galvanometer in practical electro-therapeutics merely as a means of determining the strength of the battery at the moment when the connection with the galvanometer is made, but by no means do I believe the galvanometer absolutely necessary to indicate the exact number of milliamperes which it is essential for us to administer in a given case, or which the patient can endure. The real therapeutical limit of the current is, after all, a decided sensation of pain complained of by the patient. When this point is reached the current of electricity is strong enough, no matter what the milliampere-meter may indicate." Dr. Holmes hastily countermanded his order! He was perfectly willing to buy everything that was necessary to complete his outfit and make it in every way worthy of the office of an electro-specialist, but $40 luxuries were quite another thing.

The following letter evidently crossed his communication in the mail, and is self-explanatory.

Dear Doctor:

In reply to your esteemed favor we beg to say that cells and milliamperes are not convertible terms at all times. Your 16 cells would produce an amperage according to the resistance, but will not make the vibrator on the faradic side of your battery hum. There is no vibrator to the galvanic side of your combined batteries, and we advise you to read over the directions carefully when using same. In the technique of galvano-therapeutics we regard a milliampere-meter as a sine qua non. Its use has lifted galvanism out of empiricism and placed it securely upon a scientific basis. You are correct in attaching to it the very highest importance, as in the opinion of the best authorities no electrician of good standing can afford to be without one. Thanking you for your valued order, which we forward by express, and assuring you of the superior workmanship of all our goods, we remain,

Very truly yours,
The Blank & Blank Mfg. Co.,
Dealers in Electro-Medical Apparatus.

As this made the meter appear to be inevitable, Dr. Holmes resigned himself and prepared to meet the C. O. D. demand for $40. When he reflected that it would preserve him from all future "empiricism" his satisfaction somewhat increased, for as

an exponent of scientific medicine his objection to empirical proceedures was deep-rooted. He also perceived that it would at once place him indisputably in the ranks of electricians in good professional standing. The meter soon arrived.

The cords and sponge electrodes were got out for a little private exhibition of the meter to his family, when the Doctor began to experience sudden qualms of uncertainty about where to put it and what to do with it. He read all the text-books and directions he had so far received without finding any light on the subject. It seemed to him that nearly all books on electricity were written to conceal information.

However, his wits led him to consult the makers, and at the end of a week he had it connected in series properly, with the aid of an extra piece of copper wire. His delight knew no bounds. Over and over again he watched the needle jump as he touched the well-moistened sponge electrodes together, and as this amused his tireless little boy he soon had the battery run down to half its original E. M. F.

As we have seen, Doctor Holmes was both studious and thorough, and it naturally seemed to him that if he expected to rise in the ranks of electrical specialists he must, of course, ground himself thoroughly in the basic principles of electro-diagnosis. All the books spoke at length of electro-diagnosis, and he concluded that it lay at the foundation of all skill in the use of electricity and was something he would need constantly in his office work.

He got at it in this way. He got out his physiology and attacked the chapter on Degeneration and Regeneration of Nerves. He took "Pflugers' law of contraction" and mastered:

C. C. C.
A. C. C.
A. O. C.
C. O. C.

from end to end and from before backwards. He read up intrapolar and extrapolar electrotonus, negative variation, weak, moderate and strong currents, and he pasted in the cover of the battery box the following memoranda:

"Anode—Copper positive pole—action sedative. Cathode—Zinc negative pole—action exciting. 1. Weak—No anodal contraction caused. 2. Medium—Anodal contraction when current ceases. 3. Strong—Destroy conduction during current."

He also noted that R. D. means the "reaction of degeneration," and was ready to meet the enemy and diagnose him secundum artem.

Just at this point his old friend with endometritis came in to obtain some further stock of the placebo he was "exhibiting" since his disaster in attempting to perform intra-uterine cupric electrolysis with his original faradic battery. How fortunate! "My dear Mrs. B.," he exclaimed, "I was just thinking of you. I have had your case in mind for some time with a view to discover some way to give you a complete cure. Now a new electrode, called the 'bipolar,' has just been introduced to the leading electro-specialists and by its use the most wonderful results are said to be obtained. I shall immediately procure one and put you upon a course of active treatment." Mrs. B. expressed her very great pleasure at the hope of a cure and Dr. Holmes ordered the electrode. It struck him as being a bit careless that the dealers forgot to send the complete pair. Such mistakes caused delay, and were exceedingly annoying, and to receive only one electrode when he especially ordered bi-polar was aggrevating. Bi meant two certainly, and two does not mean one! Later the peculiar nature of the bipolar electrode was explained to him and he grasped the idea successfully.

"Now, Mrs. B.," said Dr. Holmes, with the calm confidence born of his library researches, "this electrode produces a remarkable sedative effect. What your womb needs is sedation. It has been inflamed for so many years that we must soothe and quiet it. You see you are not required to remove any clothing. Just recline as usual upon the table, place your feet in the stirrups, whilst I simply insert the electrode and turn on the current. All ready? There

we are! How does that feel?" Mrs. B. did not feel anything. The Doctor cautiously drew out the sliding cylinder and increased the strength of the current. She still felt nothing. He had not discovered the difference between cutaneous applications and the enormous tolerance of the vaginal mucous membrane,and he was perplexed. Bound to persevere, however, he changed the cords to binding posts 2 and 3, which gave the strong current (per directions) and he drew the cylinder out and put it on the table. Mrs. B. now felt sensations, but they were far from soothing. Every now and then the current gave a jump, after the fashion of such faradic affairs as this growing electro-therapeutist possessed. Its vibrator was crude and uneven, and its solitary coil contained probably 200 feet of coarse wire. His glowing fancy pictured it as something superb, for it was a combined galvanic and faradic battery; its solid oak box stood 12 1-2x13 1-2x11 inches, it weighed fully 30 pounds, and he had paid $38 for it in New York! But something seemed to be wrong with the new electrode! Mrs. B. said it was hurting her. What could the matter be? "Oh! Doctor," she exclaimed, "what are you doing?" Now that new-fangled electrode had been bought with the distinct understanding that it produced a high tension, sedative effect, that it would relieve the pain of pelvic inflammation and establish a local anesthesia. Dr. Holmes was seated by his office pride, wrapped in revery, and musing upon his expanding knowledge of electro-therapeutics. Suddenly a yell like a Comanche war-whoop broke on his ear. "Doctor," shrieked Mrs. B., "the thing-um-bob is slipping out!" Howl after howl of suppressed but piercing agony followed this exclamation, and the Doctor stood rooted to the spot. Not so Mrs. B. Grabbing him desperately by the only arm she could reach, she cried: "Pull it out. Oh, pull it out; stop the battery quick, quick, it's killing me!"

When the excitement was over, and calm had settled upon the office, Mrs. B. and the Doctor had a talk. "Doctor," said she, "that sedative electrode is too stimulating for my quiet nature. I have tried cupric-electrolysis. I have tried this here fancy bipolar and I have tried endometritis. I think that with your permission I will stick to the endometritis."

Two weeks after this startling episode a reprint of an article on the "Faradic Current in Gynecology" was forwarded to Dr. Holmes by the author. In glancing through it his eye fell upon this passage of peculiar interest: "The internal os and tissues at the vulva are very sensitive to the Faradic current."

No woman who has passed through the ordeal of child-birth need be told what it is to have a bipolar electrode slip out of position while the current is turned on. It is a catastrophe that should never happen, and when Doctor Holmes administers this form of treatment at the present time he devotes himself to keeping the electrode where it belongs.

Let us now go back to the study of electro-diagnosis. As day after day went by the doctor kept on the lookout for clinical material on which to put his studies into practice. In most of his cases he seemed to have no room to make the diagnosis by electricity, as he readily did it in the usual way. Lumbago, sciatica, measles, rheumatism, the grip; all these and more of his daily practice he knew at sight without searching for R. D. by electrical reactions.

However, he wished to obtain some practical experience in the technique, so he concluded to call in his coachman and demonstrate the method on him.

For this purpose he laid the man at full length on his operating table, exposed leading groups of muscles and moistened his sponge electrodes. With his eye fixed on Pflugers' law and his memorandum pasted in the cover of the box he applied one electrode to the sternum (per directions), while with the other he prepared to test single and various groups of muscles. Time forbids a full account of the difficulties that arose one after the oth-

er to perplex the investigator of the reaction of degeneration in the muscular fibres of his brawny Jehu. Our purpose is served when we report that this series of original experiments led the Doctor to the disappointing discovery that his battery possessed neither slow rheotome nor single contact key, of which the catalogue speaks in the following terms: "This is used for single impulses, to contract single muscles and groups of muscles, a great help in diagnosis!"

Clearly, if he expected to do anything in this line of work he would be obliged to have some further additions made to his apparatus.

S. H. MONELL,
44 West Forty-sixth street,
New York.

Surgery.

IN CHARGE OF
DR. T. H. MANLEY, New York.

CONTRIBUTION TO THE STUDY OF BILIARY CALCULUS BY SURGICAL MEASURES.

Kehr has lately given to the profession his results in the surgical treatment of biliary calculus. He had reported 81 operations; 53 in the last three years. In 36 cases of cholo-cystotomy practiced "en deux temps," there were no deaths. The production of a biliary fistula is not a dangerous procedure. In but one case did a fistula persist.

The following are the author's conclusions:

1. Many cases of biliary calculi demand operation, and it is important that we operate early.

2. Many may first try a course of Carlsbad water as a resolvent before resorting to an operation.

3. The practitioner must not defer operation until it is too late.

4. The progress of the disease and its intensity often render surgery imperative.

5. We must not wait until all the classic symptoms manifest themselves before instituting radical measures.

6. In some cases of enlargement of the stomach from pyloric obstruction, cancer or hernia through the median line we may mistake these conditions for calculus if we are not cautious.

7. In some cases a tongue-shaped appendage is given off from the liver, which may be mistaken for hydopovisicae, or displacement of the right kidney.

8. Hepatic colic is generally followed by inflammation of the gall bladder, the resulting icterus being caused by a tumefaction of the mucous membrane of the gall duct.

9. Adhesion between the pylorus and gall bladder may give rise to very painful symptoms, which may simulate gall stones.

10. To remove calculi, cholo-cystotomy suffices, and when the proper technique is instituted a cure should always follow.

11. Adhesions should be always thoroughly liberated.

12. We must modify our procedure according to circumstances.

13. In malignant disease, when the gall bladder is much wasted and practically useless we may remove it.

14. Large, impacted calculi in the cholo-duct may be removed by direct incision.

15. Encysted calculi may be displaced and evacuated through an incision in the walls of the bladder.

16. Surgical treatment is never more dangerous than medical.

17. Kehr never had a relapse.

18. This operation may be performed equally as well at home as in the clinic.

19. Only those who have had experience in abdominal surgery should essay these operations.

(Revue de la Etrangere L'Union Med., Dec. 10, '94.)

STATISTICS ON RESECTION OF THE INTESTINE.

M. Becker gives the results of the intestine resection performed by Trendelenburg, of Bonn, during the past six years. He had 33 cases in all—5 for strangulated hernia, 11 for artificial anus, 2 for ilius, 1 for ap-

pendicitis, 4 for stercoraceous fistula, following perityphlitis, 1 for stercoral fistula, following ulcer of the colon, 3 for cicatricial fistula following tuberculosis and 6 for tumors. Of this number 21 were cured. His experience convinced him that artificial anus succeeded better than resection in cases of sphacelus, in hernia.

L'Union Med., Dec. 10, '94.

INVAGINATION OF THE INTESTINE IN INFANTS.

By M. Hirschprung.

This author had seen 64 cases of intussusception in children—46 in infants under one year, 36 were nurslings. In the 64, 38 recovered, or 60 per cent.

He divided this affection into that of the ileum, the ileo-cecal and colic. Ileo-cecal is the most common. It comes on suddenly, and commonly disappears from 24 to 48 hours. When not spontaneously relieved the infant goes into collapse, the temperature falls and the urine presents Roubach's test. The tumor appears in the right iliac fossa.

The most common age for intussusception of the colon is under the first year. The affection comes on slowly, being generally preceded by diarrhea or rectal tenesmus, and blood with mucus is freely passed. The most frequent seat is in the sigmoid flexure of the colon. Fecal vomiting is rare. Intussusception of the small intestine comes on brusquely, usually in infants over nine months old. Its cause is very obscure. Obstruction, it seems, is not complete in this type.

In order to accurately examine these cases an anesthetic should be given to relax the abdominal walls. When the symptoms are not too urgent in some, one may liberate the bowel by massage. Ileo-cecal invagination may be often overcome per enemata. When these fail, laparotomy offers the only hope; but to secure the fullest benefit we should not delay too long.

(66th Reunion des Naturalistes et Medicins Allmands. Vienne, 24 an 30 Sept., '94)

(Le Mercredi-Medical, 5 Dec., '94.)

ON THE INSUFFLATION OF AIR OF THE PERITONEUM IN TUBERCULOUS PERITONITIS.

By M. C. Dr. Folet.

The author subscribes a highly valuable note on the above subject. He tells us that Spencer Wells, when about to remove an ovarian cyst, in 1862, came onto an extensive mass of tubercule and ascites, which he cleared away partly with the tumor. The patient fully recovered from the operation and never again had any more terrible pain from the tubercular disease of the viscera.

Konig was the first to formally recommend laparotomy and practice it for tuberculous peritonitis in 1882. After this cases multiplied in every direction in which operation was invoked for tuberculosis of the peritoneum, especially in France, England and Germany.

Adelbert, in 1892, in his inaugural, in Paris, reported 308 cases which he had collected. Roerch, of Liege, last year gave the records of 50 cases. The mortality of the operation is small. In 358 cases operated on 32 died soon after operation, while 51 more sank at later stages, many with tuberculous invasion of other organs. The cases which offer the best prospects of recovery are the subacute, chronic or encysted. The dry, fibro-plastic variety, with infiltration and puckering of the epiploon give the worst results.

What is the mechanism of cure? Here we are in a field of hypothesis. Probably the admission of air excites a healthy inflammation, which tends to disintegration and absorption of the neoplastic elements. Possibly the major part of the microbic elements are washed away with the ascitic fluid drained off.

Another view is that in all surgical operations on tuberculosis of the peritoneum, a detergent action is brought about by the use of a free lavage of medicated solutions, as those partly composed of thymol phenic acid, bichloride, boracic acid, salicylic, etc., besides, by touching the affected parts with iodoform, iodine, or curetting their granular

surfaces, and drainage itself may exert a salutary influence.

In May, 1892, Professor Mosetig Moorhoff, of Vienna, on operation for tuberculosis of the epididymus of a boy of 12 years, found the spermatic cord and peritoneum affected, extensively, by the same pathological condition. He then introduced a tube through the infundibuliform—process and evacuated 1700 centilitres of a whitish fluid. He then inflated the abdomen through the same tube until the belly was quite tympanetic, when he withdrew the tube and closed the wound, the boy making a rapid and perfect recovery.

(Revue De Chirurgic, 10th Dec., '94.) T. H. M.

INCISION OF THE PERICARDIUM FOR PURULENT PERICARDITIS.

Von Eiselsberg (Wien. klin. Woch., No. 2, 1895) relates the case of a youth aged 17, who in October, 1893, received a punctured wound in the cardiac region, penetrating for 2.3 cm. The wound gave no pain, and was cured without medical treatment. A month later the patient began to suffer from dyspnea, cyanosis, edema, frequent small irregular pulse, increased cardiac dullness, apex beat no longer visible, no murmur, temperature not much raised. As the dyspnea got worse, and there was much cough, the pericardium was punctured with a fine trocar, and a litre of purulent fluid withdrawn, followed by marked amelioration of the general condition, and rapid reduction of the cardiac dullness. A few days later the patient was as bad as ever, and the aspiration was repeated, 900 g. of purulent fluid being withdrawn. Once again a litre of pus was removed by aspiration, and as the patient then had signs of pleuro-pneumonia on the left side it was decided to open the pericardium freely. This was done at the level of the fourth left costal cartilage, which was resected. A transverse incision of 4 cm. was made in the pericardium, and 2 litres of purulent fluid mixed with many large clots of fibrin were let out. The cavity was washed with a solution of salicylic acid, and two drainage tubes inserted. Marked improvement followed the operation, and the wound healed completely in 21 days; at the same time the other symptoms disappeared. Bacteriological examination of the pus showed the presence of the bacterium coli.

MODERN METHODS OF INTESTINAL RESECTION AND ANASTOMOSIS.

Konig (Centralblatt fur Chirurgie, No. 4), whilst recognizing the fact that modern methods of establishing intestinal anastomosis by bone plates, metal buttons, etc., favor rapidity of operation, holds that a prolonged laparotomy does not lead to shock. He states that in the many operations he has performed for intestinal resection and anastomosis he has never met with an instance in which death could be attributed to shock. In this conclusion, he states, he is supported by a large majority of his German colleagues. For this reason he is not disposed to substitute for older and safe operations, which may take some time in their performance, rapid methods the safety of which seems to him to be doubtful. That the use of Murphy's button may serve to extend the practice of resection, and thus enable inexperienced surgeons to perform these operations, is regarded as being, as far as the patients are concerned, rather a disadvantage than an indication of advance.

Medicine.

IN CHARGE OF
DR. E. W. BING, Chester, Pa.

CAUTERIZING IN PURULENT OPHTHALMIA.

The manner of practicing cauterizations in the treatment of purulent ophthalmia, according to Abadie, is to evert the upper eyelid and brush thoroughly with a solution of nitrate of silver, 3 per cent, then apply cold compresses, and to instil every hour

some drops of a solution of nitrate of silver of strength of 1 per 1000. The cauterizations are repeated morning and evening, until marked improvement occurs, when the strength of the solution is decreased. The main point is to apply the solution to the entire upper eyelid. If the lid cannot for any reason be completely everted, the external commissure should be divided sufficiently for the purpose.—Bull. Gen. de Therap.

CAUSES OF PARAPLEGIA IN POTTS' DISEASE.

JABOULAY.

This variety of paraplegia is usually due to a lesion in the arterior part of the cord and membranes. When the lesion is situated in the cervical region it is generally the result of a bony projection pressing on the cord. The most common cause of compression in this region is from deviation of the odontoid process.

In the dorso-lumbar region the lesions are more diffused and often attack the whole thickness of the cord. When there is no deformity the disease may be caused by an abscess or by congestion, or by the products of inflammation, or by arrested development of the spinal canal.

Pressure from this cause gives paralysis more or less rapid and pronounced, according as the process is rapid. The disease may get well spontaneously, by rest and immobilization.—Annales d'Orthopedie.

ERGOT IN PHTHISIS.

Ergot is recommended as a remedy for the night sweats of phthisis, by Goldenbach. Its efficiency is due to its action on the vaso-motor nerves.

A NEW TREATMENT OF WHOOPING-COUGH.

Lyon Medical for January 13 publishes an abstract of an article from the Medecine Moderne for December 26, 1894, in which M. de Chateaubourg describes a new treatment of whooping-cough, which consists in injecting, subcutaneously, two cubic centimetres and a half of a ten per cent. solution of guaiacol and eucalyptol in sterilized oil. After the third injection the fits of coughing diminish noticeably, the appetite returns, and, as the vomiting rapidly ceases and the general condition begins to feel the good effects of the treatment, the whooping-cough disappears at the same time. The author reported five cases.

THE TREATMENT OF DIPHTHERITIC ANGINA WITH A CONCENTRATED SOLUTION OF CORROSIVE SUBLIMATE IN GLYCERIN.

The Gazette Hebdomadaire de Medecine et de Chirurgie for January 5 contains a review of an article by M. Goubeau and M. Hulot, which appeared in the Archives Generales de Medecine for September and October, 1894. In 44 cases, says the writer, the authors employed this treatment, which consisted in painting the false membranes with glycerin containing five per cent. of corrosive sublimate twice during the 24 hours. The paintings should be confined as much as possible to the false membranes, which should never be detached, and if too much of the sublimate has been used it must be wiped off immediately with a dry brush. These applications were not painful in the majority of cases, and the false membranes seemed to dry in their place and fall off without being reproduced. The secondary infections and the adenopathy disappeared very rapidly, the general condition improved quickly, and no symptoms of mercurial poisoning supervened even in very young infants. The mortality was 4.7 per cent.

RESTORATION OF LIFE BY RHYTHMICAL TRACTIONS ON THE TONGUE.

Discussion before the Academie de Medecine, December 4, 1894; La Semaine Medicale. M. Laborde re-

lated a fresh case of recovery by rhythmic tractions of the tongue; the subject was a new-born child in a condition of apparent death after delivery with forceps. After having, by the use of lingual traction practiced for ten minutes, brought the child to life, M. Guiet, to whom this observation is due, was obliged to leave the child to devote himself to the mother. Returning to it, he found it apparently dead; he then resorted to the usual procedures—artificial respiration, friction, etc., without avail, for ten minutes, when he resorted again to this method, with complete success in six minutes. He considers this conclusive proof of the superiority of rhythmical traction of the tongue over other methods. Replying to M. Tarnier, who advocated insufflation as a process easy of application when mastered, and much more efficacious, he said that insufflation merely inflated the lungs, and did not excite respiratory reflex. This was accomplished, he maintained, by stimulation of the superior laryngeal nerve or traction of the tongue—one and the same thing; then only did air actually penetrate the lung. M. Tarnier argued, however, that his clinical experience taught him that the respiratory reflex was accomplished when air mechanically entered the lungs. M. Pinard said that he had failed to restore newly-born children by the method advocated, but had succeeded by insufflation.

TREATMENT OF ASCITES.

Finsen (Ugeskrift for Laeger, Nos. 38, 39, 1894), who for ten years had suffered from ascites (due to congenital heart affection and hydatid of liver), and had tried all usual remedies in vain, attempted to "dry up" his ascites by bringing as little fluid as possible to the system. For nine days he took only 400 g. of fluid in the 24 hours, with the result that three or four days after commencing the dieting his diuresis increased in quantity from 800 c.cm. on the first day to 1100 to 1200 c.cm. on the third to the fifth day—an amount which he had not passed for years. At the same time the other distressing symptoms disappeared. He has since been able to keep his ascites in check by being careful not to imbibe too large quantities of fluid, and when he finds it increasing again adopting a dry regimen. By way of experiment he once brought on an ascites in ten days and got rid of it in another ten days. When the ascites was great and the diuresis small the treatment was slower in taking effect. When the diuresis was 800 c.cm. it was easy to get rid of the ascites by a not very severe diet; but of late years, when it has often been only 400 to 500 c.cm., the author has had to be much stricter in his dieting. He found by experiment that when the diuresis was 500 c.cm. he had to drink 300 c.cm. less daily to get the same result as when it was 800 c.cm. To expedite matters he has of late years combined the dry dieting with 7 to 8 g. doses of light magnesia daily or every other day, and was able to free the system from 700 to 800 c.cm. fluid by purging only. In spite of this treatment the author was able to carry on his work. He also tried 5 g. doses of chloride of ammonium and dry dieting, but, though less exhausting, this method was not so rapid as dry diet and magnesia. As regards the increase in the diuresis, which was almost in inverse proportion to the fluid imbibed, the author is inclined to think that, whenever there is a retention of fluid in the body in open connection with the lymphatics, absorption from it will not commence until the blood has reached a concentration requiring dilution. As a rule the increase of urine began first a few days after the commencement of the dieting, and these first days were the most distressing, with great thirst, dry tongue, and salt taste of the saliva. As soon as the diuresis began—generally on the third or fourth day—these symptoms disappeared. It must be assumed that the blood during the dry diet becomes concentrated, and when it has reached a certain degree of concentration the

absorption begins from the lymphatics, and it would seem as if the absorption, having once begun, becomes more and more easy. And by the commencing absorption of the ascites the diminished intraperitoneal pressure on the liver and kidneys allows a freer passage of blood through them.

INJECTIONS OF SHEEP SERUM IN THE TREATMENT OF SYPHILIS.

In the Presse Medicale for January 12 there is a review of an article by Dr. Istamanoff, which appeared in Vratch for November 24, 1894. The author, says the writer, tried this method in 16 cases of syphilis, and in 13 the injections caused the disappearnce of all the secondary symptoms; in the 14th they had no result; in the 15th the symptoms returned as soon as the injections were discontinued; and in the 16th the roseola disappeared, but the ulcerated papules were not modified, so that the author had to resort to local treatment with calomel.

The serum was taken every day from a sheep's carotid artery, and injections of from two to six cubic centimetres were administered every day, or at intervals of two or three days, ordinarily in the buttock. The largest number of injections given to each patient was 15. The author found that they were always painful, sometimes extremely so, and that each one gave rise to a slight increase of temperature, which did not exceed, however, 98.9 dgrees F.

With regard to the curative value of this treatment Dr. Istamanoff admits that the injections cause the disappearance of the visible manifestations of syphilis in the secondary period, but the smaller number of cases and the short time during which the patients were under observation did not enable the author to say whether or not these injections really cured syphilis and prevented its recurrence.—N. Y. Med. Journal.

Miscellany.

A SUICIDE'S BRAIN AND ITS MORPHOLOGY.

Burthilder (Journal of Nervous and Mental Diseases, 1894) gives an account of the post-mortem examination of the brain of an educated and apparently moral person who committed suicide. Dr. W. J. B., aged 35, dentist, shot himself with a pistol through the middle of the forehead, and through the right temple. The fissures and convolutions of the brain showed the following abnormalities: (a) Excessive development of the external occipital fissure, constituting, together with the internal, a deep cleft separating the occipital lobe from the parietal. This corresponds to the Affenspalte of anthropoid apes, and is a stigma of defective evolution. (b) Duplication of both central fissures (fissures of Rolando); (c) in the left hemisphere these passing into and becoming confluent with the Sylvian. (A mark of abnormality which Benedikt has shown to characterize ill-balanced and criminal brains.) Other abnormalities are also shown in the left frontal lobe at its posterior part. (d) Further, as was pointed out by Dercean, the left parallel fissure pursued a markedly ascending course, and joined the posterior part of the Sylvian—another feature of degeneracy. Personal studies in the patient's heredity seem to have shown that suicidal and insane tendencies were present in the ancestors, thus confirming the data of brain morphology.

THE CLUB FIGHT AT CORK.

Matters are progressing rapidly in connection with the club fight. So far six of the clubs have accepted the reasonable terms of the medical men. Some time ago funds were subscribed for the purpose of defraying current and other expenses, but as it was felt that something more

should be done a meeting was held last Wednesday, and a sum of 450 pounds was at once handed in. It is very much to the credit of some of the club practitioners that, though they have lost their clubs, they individually subscribed 15 and 20 pounds to the medical war chest.—Lancet.

Wayside Notes.

By E. B. Sangree, M. D., Philadelphia.

I wonder who is going to be the pioneer in calling a halt on the patent medicine advertisements? For some time I have been looking for Anthony Comstock or some other energetic fellow to take up the matter. Who is going to draw the line at where propriety ends and impropriety begins? I have been watching with much interest for some years the evolution of this class of advertisement, and some of those of the present day fairly make me stand aghast. There is not much in our medical books with regard to one's internal economy that is hidden from the reader of the daily paper.

I am simply amazed to read over women's signatures letter after letter detailing private ailments of such a nature that one would fancy a woman to hesitate twice before even modestly revealing them to her family physician. One woman, for instance, giving her name and address and also her picture, says in effect that the doctors told her she was in such a condition internally that she could have no children, but thanks to Lavinia Prinkem's compound, she now had a "dear little babe six weeks old." (Baby's picture given to prove assertion). She then adds that previous to using this remarkable compound she had "experienced great pain at her menstrual periods, and was compelled to go to bed for several days; that she suffered from bearing down sensations, leucorrhea, itching, pain in the bladder" and several more sensations that I cannot now recollect.

In another paper a young Philadelphia shop girl, whose picture, name and address are also given, graphically details the severe pains she experienced during her menstrual periods, with other data of equally interesting character with regard to her pelvic organs, closing, of course, with encomiums of the "Compound" for making her monthlies regular now and free from pain. But, great Caesar! I had always thought that a young girl would prefer being chopped in little pieces to publishing far and wide ills of such a character.

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Why, I ask, if the women are allowed to tell all about their leucorrheas, prolapses uteri, etc., are the men not to be given the same privilege?

Has not Dr. Bobb, for instance, whom young people are advised to "consult after all others fail," a perfect right to publish John Smith's picture with his name and address; the same Smith certifying that though he had been treated for gonorrhea on five different previous occasions, Dr. Bobb's medicine cured him of the sixth attack far more quickly and satisfactorily than he had been cured before, and closing with the assurance that he would consult Dr. Bobb immediately next time, and advising others to do the same.

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Between theatrical bill-board posters and anatomical cigarette cards, the literature on lost manhood so generally distributed by the "retired missionary from India," and the diurnal pelvic patent medicine advertisement, the young person of the present day probably knows much more about himself and others than his great-grandfather did when he came to give up the ghost.

"De trouble 'bout de spirit ob perserverance," said Uncle Eben, "am dat it's too li'ble to strike a man hahdest when he's intiahly in de wrong."—Washington Star.